

APPARATUS AND METHOD FOR CHARACTERIZING THE TONER CONCENTRATION IN A DEVELOPER OF A PRINTING DEVICE

Abstract of the Disclosure

5 An apparatus (100) for measuring toner concentration in a developer
contained in a developer housing (10) includes a developer sample container (102) that
receives a portion of developer extracted from the developer housing (10). A
spectrophotometer (112) measures spectrophotometric data for the portion of the
developer in the developer sample container (102). A processor (116) estimates the
10 toner concentration based on the measured spectrophotometric data and a pre-
determined relationship (118) between the spectrophotometric data and the toner
concentration. A method (200) for estimating the toner concentration in a developer
comprising a toner and a carrier includes measuring (220) a color characteristic of the
developer, comparing (222) the measured color characteristic with a pre-determined
15 relationship between the color characteristic and the toner concentration, and estimating
(226) the toner concentration based on the comparing.